



## CDS: SPBC16G5.09



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## General Information

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Systematic Name SPBC16G5.09

Status role inferred from homology

Product serine carboxypeptidase (predicted)

Type CDS

Sequence [DNA and Protein](#)

## Location

Chromosome 2

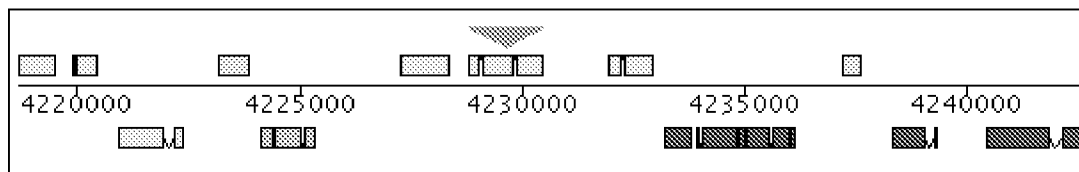
Contig Location 4228817..4230463 (Unspliced length: 1647 bp)

Exons join(4228817..4229044 , 4229112..4229810 , 4229858..4230463) (Spliced length: 1533 bp)

[Region download and display \(in Artemis\)](#)

[Genome Browser](#)

Context Map:



[SPBC16G5.03](#) [mrp123](#) [SPBC16G5.05c](#) [SPBC16G5.06](#) [SPBC16G5.07c](#) [trp4](#) [>SPBC16G5.09<](#) [SPBC16G5.10](#)  
[bag101](#) [top3](#) [SPBC16G5.13](#) [rps3](#) [fkh2](#)

## Curation

Term

peptidase family S10

predicted N-terminal signal sequence

similar to *S. cerevisiae* [YGL203C](#)

conserved family

Other genes annotated to this term

(1 Other)

(254 Others)

(0 Others)

(54 Others)

## Predicted Peptide Properties

Mass	57.6 kDa	Amino acids	510
Isoelectric point	pH 4.5	Charge	-24.5

Signal Peptide Signal peptide predicted for SPBC16G5.09 by SignalP 2.0 HMM (Signal peptide probability 0.961, signal anchor probability 0.003) with cleavage site probability 0.864 between residues 21 and 22

Transmembrane

Domains	1 probable transmembrane helix predicted for SPBC16G5.09 by TMHMM2.0 at aa 469-491
GPI Anchor	Not found

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### Gene Ontology Annotation

Term (browse Amigo)	Qualifier Evidence	Other genes annotated to this term
Biological Process		
<a href="#">proteolysis</a>	IEA (GOA:interproGO_REF:0000002) with InterPro:IPR001563	<a href="#">228 others</a>
Cellular Component		
<a href="#">integral to membrane</a>	IEA (GOA:spkwGO_REF:0000004) with SP_KW:KW-0812	<a href="#">793 others</a>
<a href="#">trans-Golgi network</a>	ISS (PMID:17072883) with SGD:S000003171	<a href="#">2 others</a>
<a href="#">vacuole</a>	IDA (PMID:16823372)	<a href="#">145 others</a>
Molecular Function		
<a href="#">carboxypeptidase D activity</a>	ISS (PMID:17072883) with SGD:S000003171	none

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### Catalytic Activity

EC 3.4.16.6 : [IUBMB](#)

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### Published Expression Profiles

Gene Expression Viewer [Cell Cycle](#) [Meiosis](#) [Environmental Stress](#) [Pheromone Response/Mating](#)  
 TranscriptomeViewer [SPBC16G5.09 High-resolution view of transcripts in neighbourhood](#)

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### Literature

Search for in [PubMed](#)

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### Domain Information

[View Pfam domain structure for this gene product](#)

[View SCOP superfamily](#)

DB	Accs	Description
Pfam	<a href="#">PF00450</a>	Serine carboxypeptidase
MEROPS	<a href="#">S10.007</a>	MEROPS
InterPro	<a href="#">IPR001563</a>	Peptidase S10, serine carboxypeptidase
PRINTS	<a href="#">PR00724</a>	Carboxypeptidase C serine protease (S10) family signature
ProDom	<a href="#">PD001189</a>	ProDom

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### Database Cross-References

DB	Accs	Description
UniProtKB	<a href="#">O60123</a>	Carboxypeptidase kex1 precursor (EC 3.4.16.6) (Carboxypeptidase D).
EMBL	<a href="#">CU329671</a>	Schizosaccharomyces pombe chromosome II
Biotwiki	<a href="#">SPBC16G5_09</a>	Biotwiki
NCBI Entrez Gene	<a href="#">SPBC16G5.09</a>	NCBI Entrez Gene
FYSSION	<a href="#">SPBC16G5.09</a>	FYSSION
GermOnline	<a href="#">SPBC16G5.09</a>	GermOnline
NBRP	<a href="#">SPBC16G5.09</a>	Fission yeast strain database, National BioResource Project (Japan)
PIR	<a href="#">T39601</a>	PIR
YOGY	<a href="#">SPBC16G5.09</a>	Retrieval of eukaryotic orthologs

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### UniProtKB Annotation For This Protein

Catalytic Activity	Preferential release of a C-terminal arginine or lysine residue.
Function	Protease with a carboxypeptidase B-like function involved in killer toxin and alpha-factor precursor processing (By similarity).
Similarity	Belongs to the peptidase S10 family.
Subcellular Location	Vacuole membrane; Single-pass type I membrane protein.
Keywords	Carboxypeptidase ( <a href="#">5 others</a> ) , Complete proteome ( <a href="#">4982 others</a> ) , Glycoprotein ( <a href="#">169 others</a> ) , Hydrolase ( <a href="#">451 others</a> ) , Membrane ( <a href="#">801 others</a> ) , Protease ( <a href="#">90 others</a> ) , Signal ( <a href="#">136 others</a> ) , Transmembrane ( <a href="#">651 others</a> ) , Vacuole ( <a href="#">42 others</a> )

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